REMARKS

Claims 1, 5-7 and 10 are pending in the application, Claim 11 has been deemed withdrawn by the Examiner. Claim 1 has been amended by specifying that the oligo-β-(1,3)-glucan is laminaripentaose. This amendment adds no new matter to the application and is proper and should be entered. For reasons as set forth below, Applicants submit that reconsideration and allowance of the claims is appropriate.

35 U.S.C. §103 Claim Rejections

The claimed invention

The claimed invention is now directed to a method for treating cancer comprising administering laminaripentaose.

As evidenced in the experimental section of the patent application, the inventors have shown that laminaripentaose is more active than laminaritetraose (see for instance paragraph [0161] of the patent application as published).

Kong et al. in view of Shoji et al

As correctly quoted by the Examiner, Kong et al. does not disclose an "*unbranched saccharide having all the characteristics recited in the instant claims or a method of making said saccharide*".

In addition, and as previously mentioned by the applicant, Kong et al. do not provide any experimental data supporting the alleged anti-tumor activity of unbranched oligosaccharides (see applicant's arguments presented in response to the office action dated April 15, 2009). The only suggestion of Kong et al. is that a branched oligosaccharide extracted from the fungus *Lentinus edodes* might have an anti-tumor activity. This teaching correlates with the results disclosed in the Ning et al. reference, previously cited by the Examiner.

Lastly, even assuming that Shoji et al. disclose methods for making oligo-β-(1,3)-glucans, Shoji et al. are completely silent regarding the anti-cancer activity of these compounds.

Since the superior activity of laminaripentaose as compared to laminaritetraose is not disclosed nor suggested in Kong et al. taken alone or in view of Shoji et al, the claimed invention is thus patentable over these references for at least this reason.

Kong et al. in view of Katsuraya et al. 1

As correctly quoted by the Examiner, Kong et al. does not disclose an "*unbranched saccharide having all the characteristics recited in the instant claims or a method of making said saccharide*".

In addition, and as previously mentioned by the applicant, Kong et al. do not provide any experimental data supporting the alleged anti-tumor activity of unbranched oligosaccharides (see applicant's arguments presented in response to the office action dated April 15, 2009). The only suggestion of Kong et al. is that a branched oligosaccharide extracted from the fungus *Lentinus edodes* might have an anti-tumor activity. This teaching correlates with the results disclosed in the Ning et al. reference, previously cited by the Examiner.

Last, even assuming that Katsuraya et al. 1 disclose methods for making oligo-β-(1,3)-glucans, Katsuraya et al. 1 are completely silent regarding the anti-cancer activity of these compounds.

Since the superior activity of laminaripentaose as compared to laminaritetraose is not disclosed nor suggested in Kong et al. taken alone or in view of Katsuraya et al. 1, the claimed invention is thus patentable over these references for at least this reason.

Kong et al. in view of Katsuraya et al. 2

As correctly quoted by the Examiner, Kong et al. does not disclose an "*unbranched saccharide having all the characteristics recited in the instant claims or a method of making said saccharide*".

In addition, and as previously mentioned by the applicant, Kong et al. do not provide any experimental data supporting the alleged anti-tumor activity of unbranched oligosaccharides (see applicant's arguments presented in response to the office action dated April 15, 2009). The only suggestion of Kong et al. is that a branched oligosaccharide extracted from the fungus *Lentinus edodes* might have an anti-tumor

activity. This teaching correlates with the results disclosed in the Ning et al. reference, previously cited by the Examiner.

Last, even assuming that Katsuraya et al. 2 disclose methods for making oligo-β-(1,3)-glucans, Katsuraya et al. 2 are completely silent regarding the anti-cancer activity of these compounds.

Since the superior activity of laminaripentaose as compared to laminaritetraose is not disclosed nor suggested in Kong et al. taken alone or in view of Katsuraya et al. 2, the claimed invention is thus patentable over these references for at least this reason.

Kong et al. in view of Katsuraya et al. 3

As correctly quoted by the Examiner, Kong et al. does not disclose an "*unbranched saccharide having all the characteristics recited in the instant claims or a method of making said saccharide*".

In addition, and as previously mentioned by the applicant, Kong et al. do not provide any experimental data supporting the alleged anti-tumor activity of unbranched oligosaccharides (see applicant's arguments presented in response to the office action dated April 15, 2009). The only suggestion of Kong et al. is that a branched oligosaccharide extracted from the fungus *Lentinus edodes* might have an anti-tumor activity. This teaching correlates with the results disclosed in the Ning et al. reference, previously cited by the Examiner.

Last, even assuming that Katsuraya et al. 3 disclose methods for making oligo-β-(1,3)-glucans, Katsuraya et al. 3 are completely silent regarding the anti-cancer activity of these compounds.

Since the superior activity of laminaripentaose as compared to laminaritetraose is not disclosed nor suggested in Kong et al. taken alone or in view of Katsuraya et al. 3, the claimed invention is thus patentable over these references for at least this reason.

Conclusions

None of Kong et al., Katsuyara et al. 1, 2 and 3 discloses or suggests a method for treating cancer comprising administering laminaripentaose.

The claimed invention is thus clearly non obvious.

In view of the above arguments, it is considered that upon entrance of the present amendment, the claims are patentable over the cited references, and that the application will be placed in proper form for allowance.

Consideration of these arguments and prompt allowance of the above claims are thus respectfully requested.

Respectfully submitted,

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